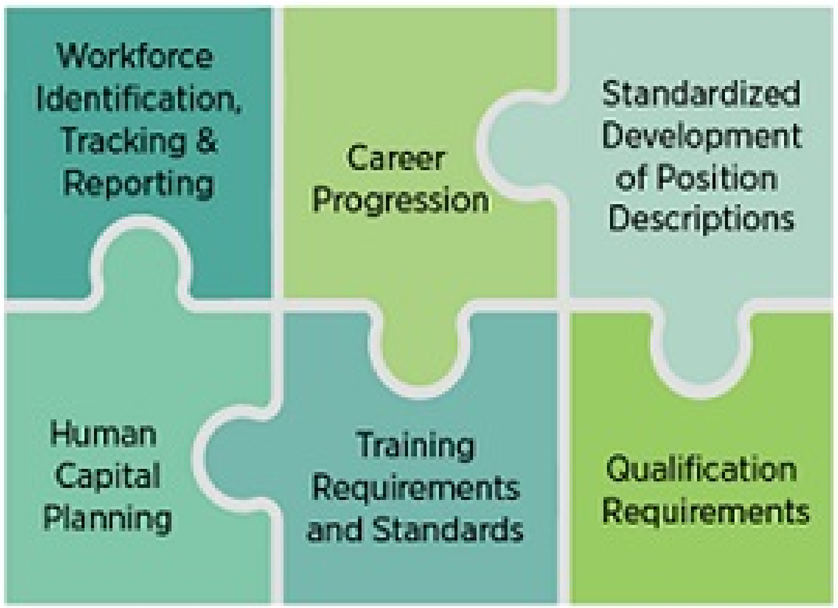
Organize…Don’t Agonize: Preparing Your Workforce for CDM


Workforce Identification, Tracking & Reporting
Career Progression
Standardized Development of Position Descriptions
Human Capital Planning
Training Requirements and Standards
Qualification Requirements

Credit: Natasha Hanacek/NIST

April 27, 2017
12:00 pm – 1:00 pm EST

CDM

A CDM LEARNING COMMUNITY EVENT

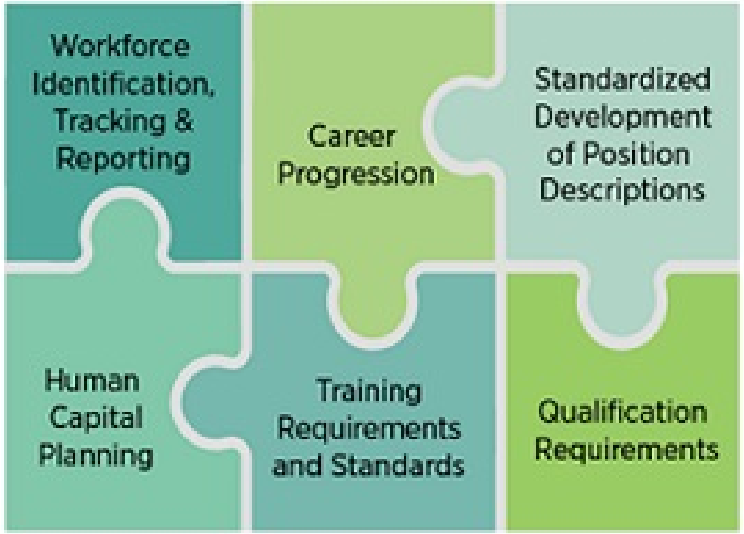
Today's Webinar Goals

1 Describe methods for maintaining a skilled and sufficient cybersecurity workforce.

2 Answer audience questions during the allotted question and answer time.

We’ll answer these questions

- How to conduct an inventory of your workforce (e.g., the kind of data to collect),
- How to identify skill gaps by using the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework, and
- How to get free training for all government staff to address skill gaps.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Today's Speaker: Dan Stein

- Acting Branch Chief, Cybersecurity Education & Awareness for the DHS Stakeholder Engagement and Cyber Infrastructure Resilience (SECIR) Division.

- Former program lead of the National Cybersecurity Education and Training Program (NCTEP).

- Supported DHS's interests in cybersecurity education and training for eight years and active in federal government information security efforts for the past eleven years.

- Holds a Master of Science in national security strategy from the U.S. National War College, as well as degrees from the University of Texas and the University of Rochester.

Homeland
Security

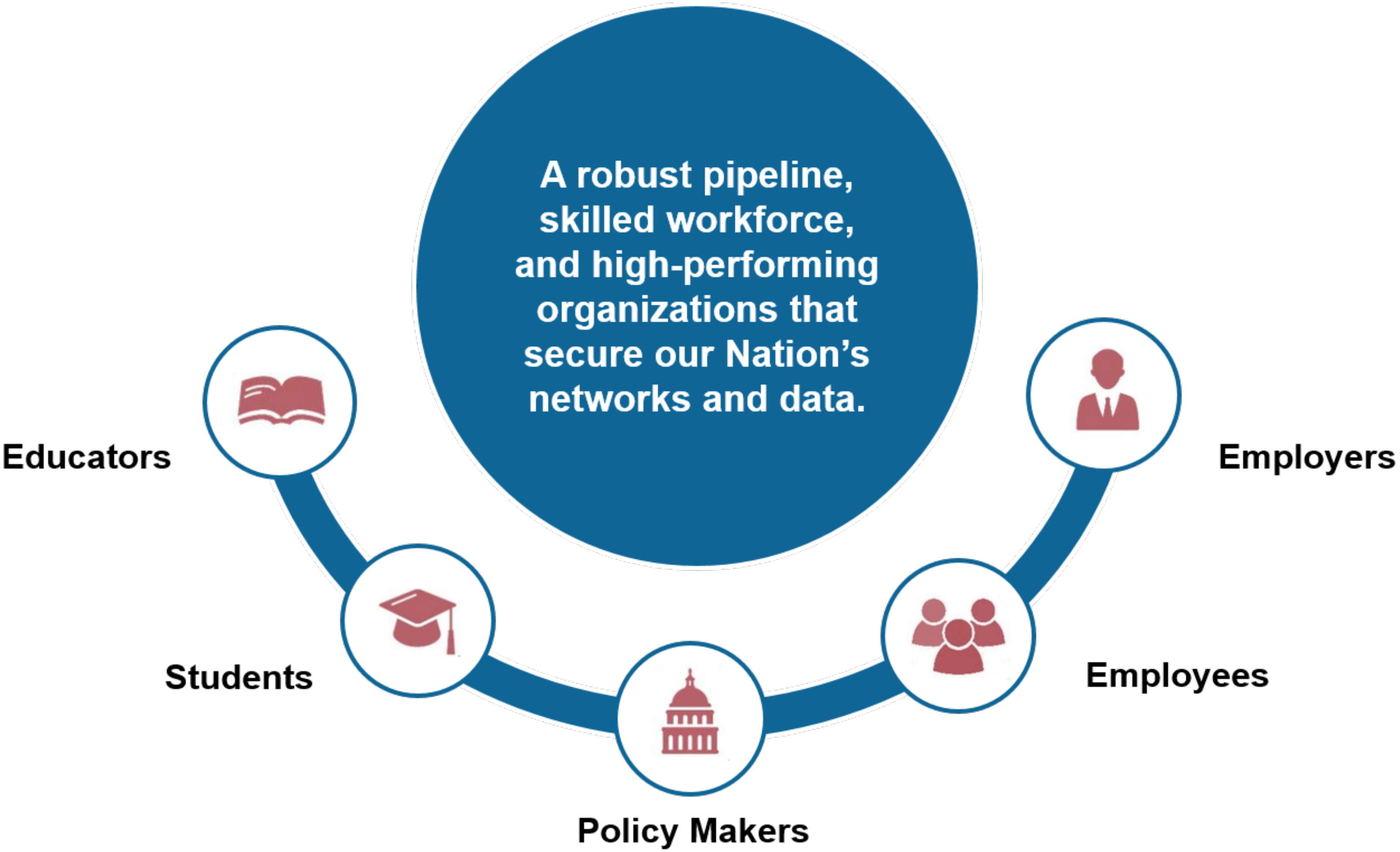
Creating a High-Performing Cybersecurity Workforce

Dan Stein
Department of Homeland Security (DHS)
National Cybersecurity Education & Awareness Branch (CE&A)

April 27, 2017
Continuous Diagnostics and Mitigation (CDM) Program Webinar

The Cybersecurity Workforce Challenge

Vision for the Nation’s Cybersecurity Workforce



A robust pipeline, skilled workforce, and high-performing organizations that secure our Nation’s networks and data.

Educators

Students

Policy Makers

Employees

Employers

Key Workforce Challenges

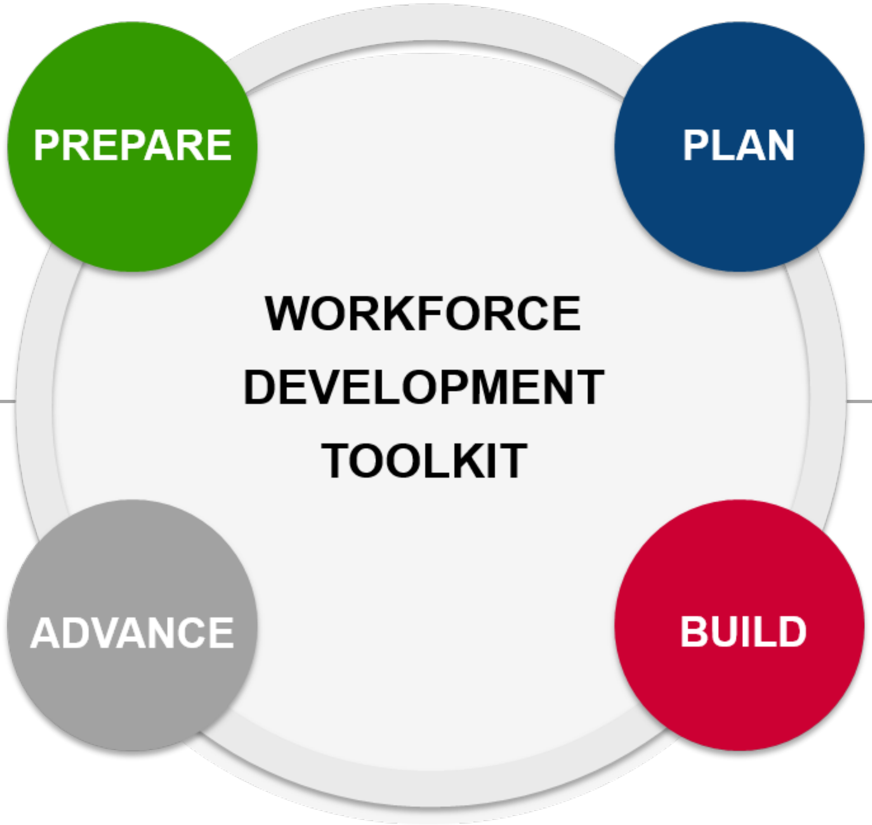
In order to have a ready workforce and robust training program in place, you need to have an action plan that can address potential workforce challenges.

Some key challenges include:

- Understanding how to best deploy staff to address the highest priority threats and use real-time data
- Establishing practices that best utilize staff and contractors
- Executing automated vs. manual tasks
- Coding civilian IT & cyber positions (and vacancies) by December 2017 and reporting annually on those positons beginning December 2018 (as mandated by the Federal Cybersecurity Workforce Assessment Act)

Cybersecurity Workforce Development

- Assess goals
- Evaluate readiness



- Inventory workforce
- Ongoing workforce planning

- Retain staff
- Provide continuous development

- Close skill gaps
- Recruit for key skills

Cyber Workforce Inventory

To help get started, conduct an inventory of your cybersecurity workforce to address these challenges.

What the Inventory Process does:

- Quantifies number of positions, vacancies, types of skills, and duties performed
- Enables data-based decision making to:
  - Identify skill gaps and personnel shortages
  - Allocate personnel and resources
  - Standardize position descriptions and performance plans
  - Prioritize hiring of critical skills
  - Write more accurate contractor requirements

Conduct the Inventory

Step 1: Collect Supply and Demand Data

Gather the following data about your workforce:

Supply (per position) *

- Skills/Knowledge
- Occupational Series
- Grade/Rank/Band/Level
- Education level
- Certifications
- Retirement Eligibility
- Permanent/Temporary
- Contractor/Federal
- Employee/Military
- Geographical location

Demand (for entire team) *

- Number of hardware items to maintain
- Number of user accounts overseen
- Number of high-priority threats addressed
- Number of low/medium-priority threats addressed
- Type of architecture(s) within the enterprise
- Historical number of cyber intrusions/attack
- Number of attack surfaces
- Number of external partners
- Number of networks to monitor
- Number of individuals with administrator rights

** Based on organizational needs, the following exemplars can be appropriately adjusted.*

Use the Collected Data

Step 2: Using the Data

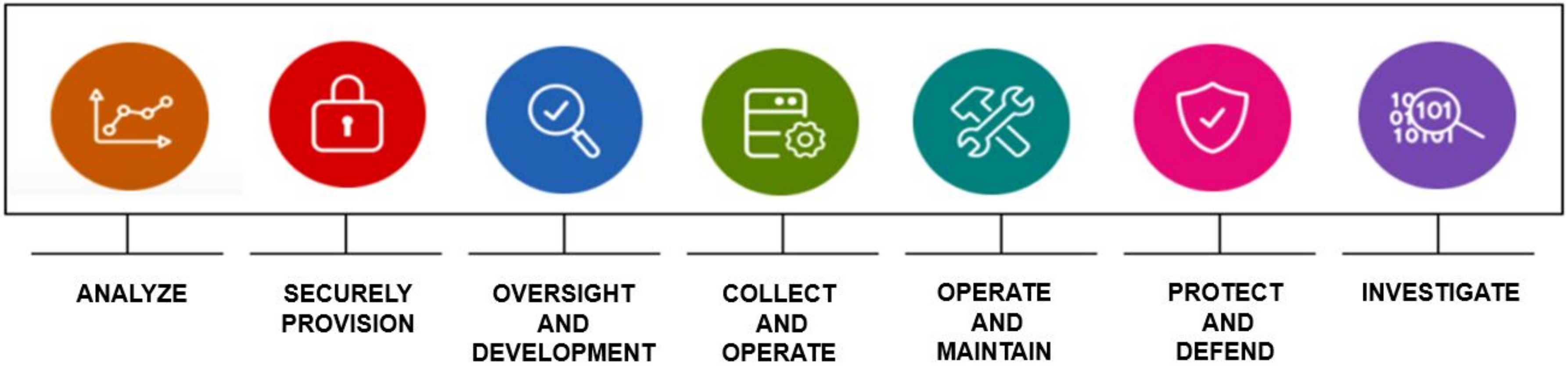
- Improve resource allocation
  - Efficiently deploy staff to high-priority threats
  - Execute manual vs. automated responsibilities
- Develop Position Descriptions (PDs)
  - Use the NICE Cybersecurity Workforce Framework and PushButtonPD™ Tool
  - Update performance plans
  - Access the NICCS Training Course Catalog and FedVTE
- Target Hiring
- Write more accurate contract requirements

Visit niccs.us-cert.gov
to access the free tools

Foundation for the Cybersecurity Workforce

NICE Cybersecurity Workforce Framework

- Describes cybersecurity work
- 7 Categories, 30+ Specialty Areas, 50+ Work Roles



PushButtonPD™ Tool

The PushButtonPD™ Tool creates a robust hiring package that can easily be integrated into existing agency HR processes.

By using the Tool, you will:

- Identify new skills
- Document skill requirements
- Draft PDs without needing extensive training or prior knowledge of position classification
- Include aligned knowledge, skills, and abilities from the NICE Workforce Framework (the common cybersecurity lexicon) in the PDs

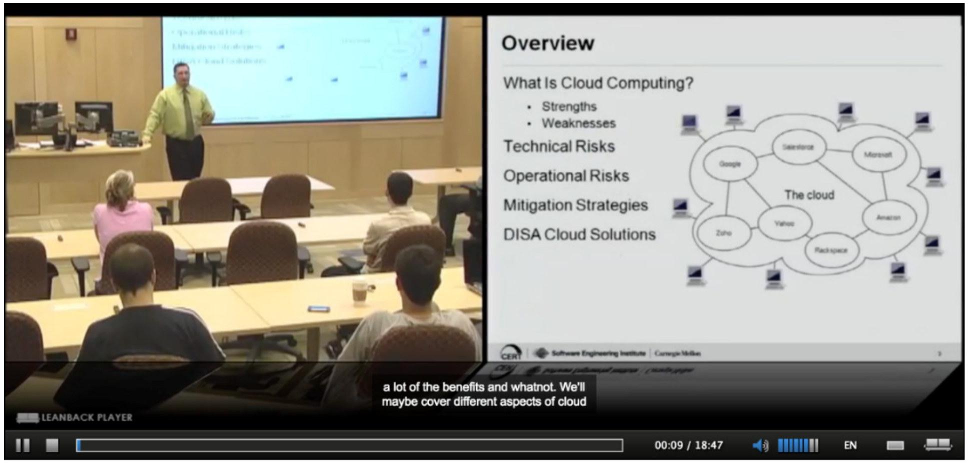
DHS CMSI PushButtonPD™

Visit https://niccs.us-cert.gov/workforce-development to download the Tool.

Self-Instructed Cybersecurity Training

Federal Virtual Training Environment (FedVTE)

- Free, online, on-demand cybersecurity training
- Available to U.S. government employees and veterans
- 60+ courses including prep for certification exams such as:
  - Network +
  - Security +
  - CISSP
  - Certified Ethical Hacker
  - CDM Modules 1-5



Overview

What Is Cloud Computing?

- Strengths
- Weaknesses

Technical Risks

Operational Risks

Mitigation Strategies

DISA Cloud Solutions

a lot of the benefits and whatnot. We'll maybe cover different aspects of cloud

Sign-up for an account at *fedvte.usalearning.gov*

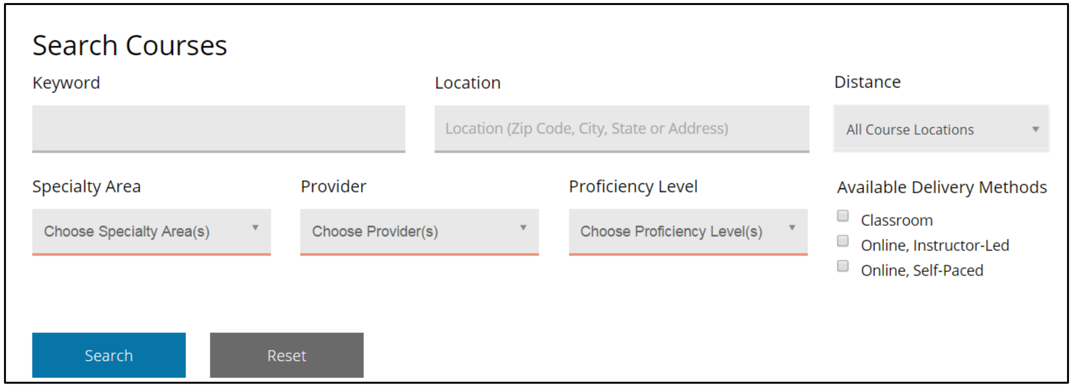
Instructor-led Cybersecurity Training

FedVTE Live! offers **free**, instructor-led online cybersecurity training to *all* government employees and veterans

Sign-up by sending an email to fedvtelive@hq.dhs.gov

Cybersecurity Training Catalog

The NICCS Website Training Catalog locates nearby cybersecurity courses, allowing all users to find courses that help them stay up-to-date on their knowledge and skills



Search Courses

Keyword

Location

Location (Zip Code, City, State or Address)

Distance

All Course Locations ▾

Specialty Area

Choose Specialty Area(s) ▾

Provider

Choose Provider(s) ▾

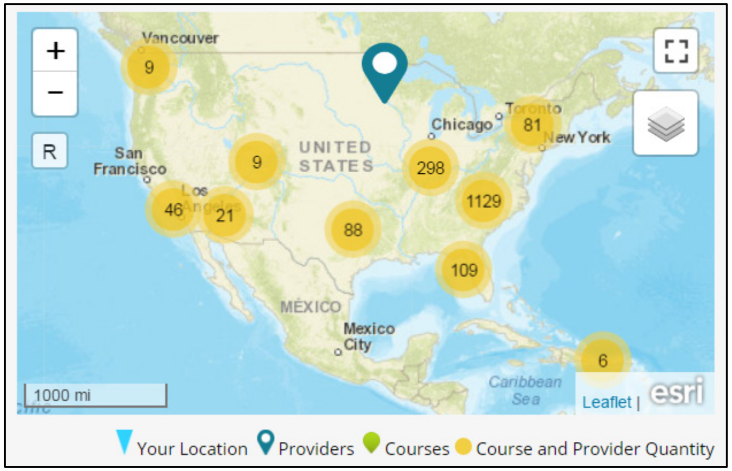
Proficiency Level

Choose Proficiency Level(s) ▾

Available Delivery Methods

- □ Classroom
- □ Online, Instructor-Led
- □ Online, Self-Paced

Search | Reset



Visit niccs.us-cert.gov to find your next course!

Helpful Resources

- Explore the Workforce Framework and download the PushButtonPD™ Tool at niccs.us-cert.gov
- Enroll in free training at fedvte.usalearning.gov and fedvtelive@hq.dhs.gov
- Find nearby certification courses from the NICCS Training Course Catalog at https://niccs.us-cert.gov/training/search.

How to Reach Us

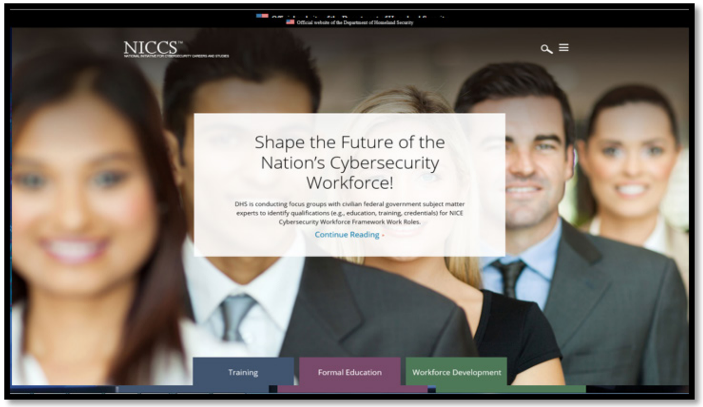
Daniel Stein

Acting Branch Chief, Cybersecurity Education & Awareness

Stakeholder Engagement and Cyber Infrastructure Resilience (SECIR) Division

U.S. Department of Homeland Security

Daniel.Stein@hq.dhs.gov



Official website of the Department of Homeland Security
NICCS™
NATIONAL INITIATIVE FOR CYBERSECURITY CAREERS AND STUDIES

Shape the Future of the Nation's Cybersecurity Workforce!

DHS is conducting focus groups with civilian federal government subject matter experts to identify qualifications (e.g., education, training, credentials) for NICE Cybersecurity Workforce Framework Work Roles.

Continue Reading ›
Training
Formal Education
Workforce Development

Website: www.dhs.gov/cyber

Audience Q&A

Please use the question box on the top right of your screen to ask questions.

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https://www.govloop.com/groups/cdm-learning-bits-bytes

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Thank you for attending today's CDM webinar!

- A certificate of attendance will be available to download at www.us-cert.gov/cdm/training within one week of today's event.

- Please help us provide better learning content by completing the short survey. Your feedback matters!